

**METHOD AND APPARATUS FOR COMBINING OUTPUT OF  
DIFFERENT TYPE INTERLEAVERS BASED ON AN INPUT DATA  
SEQUENCE TO OBTAIN A COMBINED OUTPUT**

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**Abstract of the Disclosure**

An apparatus, system and method in which a plurality of interleavers are utilized with the outputs of the interleavers being combined to generate a single combined output are provided. In a preferred embodiment, at least two of the plurality of interleavers are of a different type. For example, in one exemplary embodiment, a first interleaver is an S-random interleaver with a second interleaver being one of an algebraic, convolutional, helical, pseudo random, or other type of interleaver. Combinational logic receives the output from each of the plurality of interleavers and combines the outputs to generate one combined output having a permuted order. By combining the outputs from a plurality of interleavers, a greater amount of randomness in the input data may be obtained as opposed to that of the known single interleaver systems. In addition, by using a plurality of interleavers of different types, the limits of each individual type of interleaver may be relaxed in order to obtain a greater versatility of interleaver operation.